

WHAT IS CLAIMED IS:

1. A radio communication system, comprising:
 - a first radio communication apparatus in which first information for identification of a radio network and second information regarding the security are set in advance as communication information necessary for communication through said radio network; and
 - a second radio communication apparatus operable for communicating with said first radio communication apparatus by radio communication through said radio network;
- said second radio communication apparatus transmitting request information for requesting for transmission of the communication information to said first radio communication apparatus by radio communication;
- said first radio communication apparatus transmitting the first and second information as a response to the request information transmitted thereto from said second radio communication apparatus;
- said second radio communication apparatus setting the first and second information transmitted thereto from said first radio communication apparatus as the communication information;

said first and second radio communication apparatuses utilizing the communication information individually set therein to communicate with each other by radio communication.

2. A radio communication method for a radio communication system which includes a first radio communication apparatus in which first information for identification of a radio network and second information regarding the security are set in advance as communication information necessary for communication through said radio network and a second radio communication apparatus operable for communicating with said first radio communication apparatus by radio communication through said radio network, comprising:

a step performed by said second radio communication apparatus of transmitting request information for requesting for transmission of the communication information to said first radio communication apparatus by radio communication;

another step performed by said first radio communication apparatus of transmitting the first and second information as a response to the request information transmitted thereto from said second radio communication apparatus;

a further step performed by said second radio communication apparatus of setting the first and second information transmitted thereto from said first radio communication apparatus as the communication information; and

a still further step performed by said first and second radio communication apparatuses of utilizing the communication information individually set therein to communicate with each other by radio communication.

3. A radio communication apparatus which communicates with a different radio communication apparatus by radio communication through a radio network, comprising:

setting means in which first information for identification of said radio network and second information regarding the security are set as communication information necessary for communication through said radio network; and

transmission control means for controlling, when request information for requesting for transmission of the communication information is received from said different radio communication apparatus by radio communication, transmission of the first and second information to said different radio communication

apparatus as a response to the request information by radio communication.

4. A radio communication apparatus according to claim 3, wherein the request information is a probe request.

5. A radio communication apparatus according to claim 3, wherein a management frame is utilized for the transmission of the request information and the communication information.

6. A radio communication apparatus according to claim 3, wherein the first information is a Service Set Identification.

7. A radio communication apparatus according to claim 3, wherein the second information is a Wired Equivalent Privacy key.

8. A radio communication apparatus according to claim 3, further comprising encryption means for encrypting the communication information at least once, said transmission control means controlling the transmission of the communication information encrypted by said encryption means.

9. A radio communication method for a radio communication apparatus which communicates with a different radio communication apparatus by radio

communication through a radio network, comprising:

a transmission control step of controlling, when request information for requesting for transmission of communication information necessary for communication through said radio network is transmitted from said different radio communication apparatus to said radio communication apparatus by radio communication, transmission of first information for identification of said radio network and second information regarding the security set as communication information in said radio communication apparatus in advance by radio communication from said radio communication apparatus to said different radio communication apparatus as a response to the request information.

10. A program for causing a computer, which controls a radio communication apparatus which communicates with a different radio communication apparatus by radio communication through a radio network, to execute:

a transmission control step of controlling, when request information for requesting for transmission of communication information necessary for communication through said radio network is transmitted from said different radio communication apparatus to said radio

communication apparatus by radio communication,
transmission of first information for identification of
said radio network and second information regarding the
security set as communication information in said radio
communication apparatus in advance by radio communication
from said radio communication apparatus to said different
radio communication apparatus as a response to the
request information.

11. A radio communication apparatus which
communicates with a different radio communication
apparatus by radio communication through a radio network,
comprising:

transmission control means for controlling
transmission of request information for requesting for
transmission of communication information necessary for
communication through said radio network to said
different radio communication apparatus by radio
communication; and

setting means for setting, when first information
for identification of said radio network and second
information regarding the security are transmitted as the
communication information from said different radio
communication apparatus to said radio communication
apparatus by radio communication in response to the

request information transmitted from said radio communication apparatus under the control of said transmission control means, the first and second information as the communication information therein.

12. A radio communication apparatus according to claim 11, wherein the request information is a probe request.

13. A radio communication apparatus according to claim 11, wherein a management frame is utilized for the transmission of the request information and the communication information.

14. A radio communication apparatus according to claim 11, wherein the first information is a Service Set Identification.

15. A radio communication apparatus according to claim 11, wherein the second information is a Wired Equivalent Privacy key.

16. A radio communication apparatus according to claim 11, further comprising conversion means for converting a signal transmitted thereto through said radio network into a signal which can be transmitted through a wire circuit and converting a signal transmitted thereto through said wire circuit into a signal which can be transmitted in said radio network.

17. A radio communication apparatus according to claim 11, wherein said radio communication apparatus is a personal computer card for a radio local area network.

18. A radio communication apparatus according to claim 11, further comprising decryption means for decrypting, where the first and second information transmitted thereto from said different radio communication apparatus are in a form encrypted at least once, the encrypted first and second information, said setting means setting the first and second information decrypted by said decryption means as the communication information.

19. A radio communication method for a radio communication apparatus which communicates with a different radio communication apparatus by radio communication through a radio network, comprising:

a transmission control step of controlling transmission of request information for requesting for transmission of communication information necessary for communication through said radio network to said different radio communication apparatus by radio communication; and

a setting step of setting, when first information for identification of said radio network and second

information regarding the security are transmitted as the communication information from said different radio communication apparatus to said radio communication apparatus by radio communication in response to the request information transmitted from said radio communication apparatus under the control of the process at the transmission control step, the first and second information as the communication information therein.

20. A program for causing a computer, which controls a radio communication apparatus which communicates with a different radio communication apparatus by radio communication through a radio network, to execute:

a transmission control step of controlling transmission of request information for requesting for transmission of communication information necessary for communication through said radio network to said different radio communication apparatus by radio communication; and

a setting step of setting, when first information for identification of said radio network and second information regarding the security are transmitted as the communication information from said different radio communication apparatus to said radio communication

apparatus by radio communication in response to the request information transmitted from said radio communication apparatus under the control of the process at the transmission control step, the first and second information as the communication information therein.